Volume 2, Issue 4

October 2011

Montrose Interagency Fire Mgt. Unit

MIFMU Monthly Special Edition

Wildfire Mitigation in WUI

This special edition of MIFMU Monthly focuses on wildfire mitigation and planning efforts for the wildland urban interface (WUI) homeowner. As wildfire activity across the country subsides, we begin to reflect on the past fire season and can plan for the coming year. This year's devastating wildfire season in Texas and Arizona have many wondering if similar wildfires could happen in Colorado.

One of Colorado's most notable fires in recent history is the Hayman Fire of 2002 (138,144 acres). In west central Colorado, the largest fire on record is the Burn Canyon Fire (2002) which consumed 30,292 acres. Size is certainly not the only – and may not be the most important - determination in evaluating significant wildfire events. Loss of life during a wildfire is an unthinkable tragedy, but sadly every year citizens and firefighters perish during wildfires across the country. Fourteen firefighters died in Colorado during the South Canyon Fire (1994). The Hayman Fire was attributed with the death of five firefighters who were traveling to the fire to assist with the suppression efforts. Yet another measure of significance is the loss of homes and property. Using the Hayman Fire as an example again, 133 homes were destroyed as fire moved through the WUI – the area where homes and wildlands come together. More recently, the Fourmile Fire (2010) consumed 169 homes in the WUI and was also reported to be the most expensive fire in Colorado's history - when insurance losses ($217 million) were factored in to the overall cost of the fire.

Wildfire is a natural part of Colorado's ecology and has always impacted the landscape. Naturally-ignited wildfires burning through forests and grasslands are not inherently a bad thing, but our view of wildfire changes dramatically when it impacts lives and property. The fact that the weight of this impact has grown in the past four decades should not surprise - as development and expansion into the WUI has increased during the same time period.

The measure of significance in any wildfire should really be measured by the impact it had on those that were affected by the fire. Those personally affected by wildfire will likely have a unique and lasting impression of wildfire risk compared to those who are further removed from the event or passively watch news reports of the latest wildfire.

What we can control...is our ability to prepare ourselves and our property...

Wildfire is a dynamic event. We can anticipate when there is an increased risk of fire, or when a fire has the greatest chance of growing large, or even what a fire *may* do as it burns through particular vegetation. However, wildfires are also largely unpredictable. It is impossible to prevent all wildfires, or know where and when they will ignite. What we can control, however, is our ability to

The Home Ignition Zone

Homes are repeatedly lost in wildfires, not because of a surrounding forest, but rather combustible materials near the home. It is often the little things that make a difference in home survivability during a wildfire. While it is important to remove ladder fuels and thin over dense stands of vegetation throughout your property, do not neglect simple improvements adjacent to the structure to improve a home's defensible space.

A report of the Angora Fire (2007) in Lake Tahoe, CA found that "the fire ignited combustible material adjacent to houses which then ignited the houses... A large number of houses burned from firebrands generated from other houses rather than wildland fuel." These firebrands, or embers, ignite materials like pine needles, native and ornamental plants adjacent to the home, firewood piles, or patio furniture. The ensuing fire found vulnerability in a home's construction, burning homes to the ground - without damaging vegetation between homes.

Research conducted by Jack Cohen (Missoula Fire Science Lab) and the Insurance Institute for Business and Home Safety (IBHS) has determined that the home ignition zone (HIZ) - *structures and their immediate surroundings* - determines a home's ignition potential during an wildfire. According to these studies, homes can survive wildfires by the careful use of fire resistant building materials and landscape design in relation to its exposure to flames and embers.

MIFMU will be offering a workshop on assessing wildfire hazards in the home ignition zone next spring to a target audience of fire departments and homeowners, as well as local, county and state agency representatives.

Fire-Adapted Communities

The term fire-adapted communities has existed for a number of years, but was elevated after appearing in the 2005 Quadrennial Fire and Fuels Review (QFFR) – a report designed to represent a unified fire management vision for the five federal natural resource management agencies. The 2005 QFFR suggested promoting "fire-adapted human communities, rather than escalating protection of communities at risk in the wildland-urban interface." The ultimate goal being a greater "sense of living with fire within communities," and "establishing responsible partnerships with communities."

In 2009, the Quadrennial Fire Review (QFR) – an update of the 2005 QFFR document – said the notion that "the government will always be there" during a wildfire should be changed to a model where property owners and local agencies "take responsibility and become active participants" in curbing the effects of wildfire to communities.

"...effective partnerships, with shared responsibility held by all stakeholders of the wildland fire problem, will create well-prepared, fire-adapted communities and healthy, resilient landscapes."

Representing the National Association of State Foresters (NASF), an Arizona State Forester testified to a congressional subcommittee the importance of this concept: "Our work builds on the vision that effective partnerships, with shared responsibility held by all stakeholders of the wildland fire problem, will create well-prepared, fire-adapted communities and healthy, resilient landscapes."

Achieving fire-adapted communities is an approach that concentrates on plans and activities that reduce risk ***before*** a wildfire occurs rather than relying on outside agencies, through suppression activities, to protect communities ***after*** a wildfire starts. While a precise definition of fire-adapted communities is still being refined, characteristics that will likely shape the definition include:

- The community exists within or adjacent to a fire-prone ecosystem and has a defined geographic boundary.
- Residents possess the knowledge, skills, and willingness to properly prepare their homes before a wildfire threatens, prepare to evacuate, and safely evacuate when necessary.
- Local fire suppression forces have the adequate skills, equipment and capacity to manage wildfire.
- A community wildfire protection plan has been completed.
- Property owners have an understanding of their responsibilities before, during and after a fire.
- Local government has effective land use planning - including building codes and local ordinances.
- Individuals accept personal responsibility for their property and understands that firefighters cannot provide protection to every structure during a wildfire. It is dangerous for firefighters to attempt to protect a structure where owners have not taken

Ready, Set, Go!

The *Ready, Set, Go!* (RSG) program is a long-term national and international concept developed and managed by the International Association of Fire Chiefs (IAFC) working with stakeholders. The information below is taken from the *Ready, Set Go!* Program Outline:

The *Ready, Set, Go!* (RSG) program is a new approach to packaging existing public education programs to gain active public involvement toward reducing life/property loss and escalating costs associated with wildland fires. This tool can be used by fire departments to reach out to residents in wildland urban interface (WUI) areas to better enable them to prepare before wildfire strikes.

The *Ready, Set, Go!* program is a collaborative process that can be effective in improving coordination and communication between emergency response agencies and the community. Developing the *Ready, Set, Go!* program in each community can help build partnerships, clarify and refine priorities to protect life, property, infrastructure, and valued resources.

Ready, Set, Go! (RSG) is a public education program with two core focus points:

Stress and teach personal responsibility to those people who live within the WUI and incorporate them into the wildland fire solution by educating them in wildfire preparation, prevention, evacuation and what to do if trapped.

Begin to contain WUI fire suppression costs and reduce injuries by making communities less vulnerable to wildland fires through prevention and preparation, construction and retrofitting, defensible space and fire-resistant landscaping, and WUI fuel modification as a result of informed construction and development planning.

As a major public paradigm shift designed to enlist personal responsibility, this is a public education program that must have long-term support to be successful. RSG is designed to work in a complimentary fashion with other programs (i.e. FIREWISE, etc), and is designed to provide a framework for existing programs to achieve the goal of Fire-Adapted Communities.

- **READY** – Preparing for the Fire Threat: Take personal responsibility and prepare long before the threat of a wildfire so your home is ready in case of a fire. Create defensible space by clearing brush away from your home. Use fire-resistant landscaping and harden your home with fire-safe construction measures. Assemble emergency supplies and belongings in a safe spot.
- **SET** – Situational Awareness When a Fire Starts: Pack your vehicle with your emergency items. Stay aware of the latest news from local media and your local fire department for updated information on the fire.
- **GO** – Leave early! Following your Action Plan makes you prepared and allows firefighters to be able to maneuver around the wildfire event, while ensuring for the safety of citizens.

Partnerships to Reduce Risk

The West Region Wildfire Council (WRWC) was recently awarded $171,000 from the Bureau of Land Management to assist communities on the western slope in reducing wildfire risk. The award is part of the BLM's Community Assistance program to reduce the risk and impact of wildfire on communities within Colorado through planning, hazardous fuels reduction, mitigation, and education activities.

The West Region Wildfire Council supports interagency efforts to develop and implement plans to mitigate the threat of catastrophic wildland fire to communities and natural resources in Delta, Gunnison, Hinsdale, Montrose, Ouray and San Miguel counties. The WRWC promotes information sharing and collaboration between local communities and state and federal fire managers for fuels management, wildfire suppression, enhancing capability, planning and collaboration.

During the past few years the WRWC has worked with six counties on the western slope to develop county-wide Community Wildfire Protection Plans (CWPPs). Most recently, the WRWC has worked with Delta, Gunnison, Montrose, and Ouray Counties to complete their CWPPs. A CWPP is a synthesis of known conditions and wildfire history; combined with a determination of wildfire risk across each of the counties. The science-based result of the plan is a prescription of where and how to treat the areas of greatest wildfire risk in each county. "The CWPP is a starting point for communities to begin working on wildfire risk reduction and the creation of fire-adapted communities across the landscape," says Lilia Colter, the West Region Wildfire Council's CWPP Coordinator. "These plans are a stepping off point to begin to work with communities to reduce their risk through education and wildfire fuel reduction activities."

To help ensure the success of the CWPPs, the WRWC is offering private landowners and collective groups of private landowners the opportunity to apply for funding assistance to implement recommendations outlined in approved CWPPs. The goal of these funds is to assist in completing site specific fuels mitigation and/or landscape scale fuels reduction projects. The WRWC Community Assistance funds are a 90/10 cost-share reimbursement opportunity. For more information about wildfire mitigation grant opportunities contact Lilia Colter (wrwc.lilia@gmail.com) or (970) 249-9051 x 125.

"The CWPP is a starting point for communities to begin working on wildfire risk reduction and the creation of fire-adapted communities across the landscape."
~ Lilia Colter, WRWC CWPP Coordinator

"This award is the catalyst to bring together regional efforts of planning to reduce wildfire risk and actually implementing projects on the ground that will increase life safety," said Chris Barth, Fire Mitigation & Education Specialist for the Montrose Interagency Fire Management Unit. The BLM has been working cooperatively with recipients to help mitigate fire hazards, along with providing fire safety education and training and planning for catastrophic wildfire events, within, or in the vicinity of BLM-managed lands in Colorado. Community Assistance awards support fire departments, local governments, community service organizations, educational institutions and non-profit organizations throughout Colorado.

Preventive Efforts Save Money

Mitigation - Although there is an initial investment in implementing wildfire mitigation, a number of studies illustrate that the benefits of proactive efforts outweigh the initial costs. A study by the Multi-Hazard Mitigation Council shows each dollar spent on mitigation saves an average of four dollars (FEMA). As suppression costs across the country continue to increase annually, wildfire mitigation not only increases survivability and reduces loss – it has the potential to decrease the financial burden of these escalating suppression costs. In a 2007 press release, Colorado Representative Doug Lamborn said, "Being pro-active when dealing with disaster management is always better than being reactive. Pre-disaster planning and prevention is not only fiscally responsible, it is also socially responsible."

$1 of mitigation work saves $4 in suppression costs

Prevention - A study conducted by scientist from the USDA Forest Service Southern Research Station (SRS) suggested that wildfire prevention education in Florida paid for itself several times over by saving millions of dollars in suppression costs and reducing damages from human-caused fires (*Forest Science*). The SRS study found that the benefits exceeded costs in Florida by 10- to 99-fold, depending on various factors. Overall, results showed that Florida's benefits from wildfire prevention education efforts significantly outweighed their costs - where every dollar of additional spending in wildfire education prevention efforts could reduce wildfire damages and firefighting costs by up to $35.

Tax Deduction (*source: Colorado Department of Revenue*) - As authorized by §39-22-104(4)(n), C.R.S., for income tax years 2009 through 2013 individuals, estates and trusts may subtract from federal taxable income 50% of the costs incurred in performing wildfire mitigation measures that meet the following qualifications and limitations:

- The taxpayer must own the property upon which the wildfire mitigation measures are performed.
- The property upon which the wildfire mitigation measures are performed must be located in Colorado.
- The property upon which the wildfire mitigation measures are performed must be located in a wildland-urban interface area.
- The wildfire mitigation measures must be authorized by a community wildfire protection plan adopted by a local government within the interface area.
- The total amount of the subtraction may not exceed $2,500.

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Reducing Risk Around the Home

Reducing wildfire risk around the home requires modification and maintenance to both landscaping and the built environment. Suggestions for improving a home's survivability include:

Landscaping: Proper maintenance of vegetation surrounding the home reduces the wildfire threat.

- Remove dead, dying, or diseased trees and shrubs.
- Trim low branches of trees.
- Remove highly flammable plants adjacent to the home - replace with fire resistant plants.
- Remove debris accumulations from around the home.
- Remove branches that hang over the roof and chimney.
- Mow grass and weeds to a low height.
- Maintenance of defensible space is an on-going activity.

Built Environment: Appropriate home construction and maintenance resists ignition.

- Attach a hose that can reach to all parts of the house.
- Keep gutters free of leaves, needles and debris.
- Cover the underside of eaves to reduce ember intrusion into the home.
- Use double pane windows to reduce the likelihood of breakage from approaching heat.
- Post house numbers that are visible from all directions.
- Replace wood roofs with a non-combustible roof.
- Consider a fire resistant exterior siding; such as stucco.
- Install non-combustible decking.
- Ensure chimney screens and vents have less than 1/8" openings and are in good condition.

For more information, visit www.firewise.org.

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Look for new updates to come to the MIFMU website in 2010

http://gacc.nifc.gov/rmcc/dispatch_centers/r2mtc/

October Events

- *Hauser Creek Fire, San Diego, California, October 2, 1943 - 9 firefighter killed*
- *Griffith Park Fire, Los Angeles, California, October 3, 1933 - 29 firefighters killed*
- **MIFMU Fuels Conference Call, October 4**
- *Ontario Fire, Ontario, Canada, October 4, 1922 - 44 people killed*
- *Peshtigo Fire, Peshtigo, Wisconsin, October 8, 1871 - as many as 2,400 people killed*
- **West Region Wildfire Council, October 13**
- *Pepper Hill Fire, Lick Island, Pennsylvania, October 19, 1938 - 8 firefighters killed*
- **MIFMU Fuels Conference Call, October 18**
- *Tunnel Fire, Oakland, California, October 20, 1991 - 25 people killed*
- *Esperanza Fire, Cabazon, California, October 26, 2006 - 5 firefighters killed*
- **NFPA Firewise Conference, Denver, CO, October 27-29**

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